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Is Puerperal Fever Contagious?

One of our American Authors is said to have written a very readable work on "Travels on the Continent of Europe" without having ever strayed from the boundaries of his native land. I deem to myself to occupy a position parallel in one very important respect to the Author in Question, viz:- that of describing a terra incognita as far as personal Experience is concerned: if the parallel is completed, this thesis will have surpassed my most sanguine Expectations.

Not competent to observe for myself I have availed myself of the observations of others who are far more competent witnesses than I can ever hope to be, & have endeavored to test them by the laws of logic. In so doing, I have tried to avoid that dogmatism so illiberal and unscientific in men of ability and which from the pen of a tyro would acquire the additional demerit of presumption. If I have in this respect transgressed in spite of my efforts to the contrary, I hereby apologise for the same.

The objections to the doctrine of Contagiousness of Puerperal Fever may be thus arranged 1st Firstly (the objector) deny: all contagion or 2dly accumulated Contagion as a cause of the propagation of disease 3dly that this disease in its history does not certain laws observed in other contagious d 3dly Explain this disease as a simple ph denying that such a class of diseases can 4thly by to establish a nonsequit Examples brought forward to prove its contag

This objections falling in, in the main with my plan of treating the question, I have stated them a little out of their strict theoretical position, in order to give a clue to the arrangement I have adopted.

And first as to Contagion itself, a few words. "The transmission of disease from one person to another by direct or indirect contact" the definition of Coughlin is as terse and expressive as any I have seen. This includes the transmission of disease through the medium of one or more persons. ~~The fomites of the contagium may be either in the diseased living body or the cadaver.~~ The possibility of this transmission has been denied by some of the ultra non-Contagionists. I do not in the least feel it incumbent upon me to ~~enter into a detailed argument to prove this point,~~ discuss this point at the outset 1st because for it rests with those who deny it & characterize it as a "vile demoralizing superstition" to remove the mountains from their path. 2nd because the object of this thesis if accomplished disposes of this point. The accumulated and accumulating experience of ages attest with scarce a dissenting voice the validity of Contagion as a definite cause of many of our Exanthemata & malignant diseases. What headway would a man make, sustained by the whole medical faculty, make in attempting to prove to an intelligent and Experienced layman that Scarletina, measles Erysipelas, pertussis and Syphilis have not specific poisons capable of reproducing themselves? But am I not ridiculed for bringing to my aid the laity? I should by no means be, for there are axioms or perhaps better, postulates of the science that are fundamental & for the proof of which we need not go to the medical faculty. We find mothers instinctively shield

The almost universal belief of the Medical Profession at the present day will, I think, warrant the assumption of the existence of diseases transmissible by direct or indirect contact; for the present, leaving until the latter part of this thesis the final proof of the point

her child from the deadly influence of a ~~contagious~~ malignant disease ~~Scarlatina~~ and no words of dissuasion or ridicule by whomsoever uttered can change her purpose.

Now is the proposition tenable that contagious diseases vary in the intensity & universality of their application? Or to state it in another way, that contagious diseases are more likely to affect the system at one time than another; and, of those affected, some more powerfully than others? I think it is. Cases of sporadic cholera and small pox (especially the latter) are constantly occurring in our larger cities without occasioning any special alarm. The sequelae of chancre in the system well illustrates this. Our preceptors in the schools warn us to beware ~~of~~ is to be always made with extreme caution a favorable prognosis in cases of Syphilis for in some instances the best of treatment from the first can not save the patient from constitutional symptoms whereas in many others, in spite of the poorest treatment or even in some at all, no constitutional effects follow. While at school in '58, 9 my chum was attacked with a violent form of scarlet fever during the whole of which I was with him, nursed him and yet contrary to the expectations of all escaped the disease. This is but a representative of multitudes of cases that might be cited.

The question may well be raised, I think

It has been a question in my mind as to the cause of Contagious & epidemic ~~diseases~~ Elements of Maladies may in the diseases themselves or the conditions & circumstances entirely without the disease of the Community in which the disease finds

Watson says "There is such a thing as an

state of the human constitution* gradually produced by a gradual fluctuation in the influences whereby communities of men are surrounded and impressed". ~~that is,~~ There are certain conditions of climate, race, temperament, sex, having their analogy in the vegetable world which render individuals more liable to be impressed by certain causes than others and of ~~persons~~ [of those] impressed by the same cause, some (to be impressed) in one way rather than another. Then would this epidemic state under which each individual is placed predispose him or her to the influence of certain diseases; then might the epidemic and contagious prevalence of disease be due to the circumstances and not to the disease itself. The seeds in the vegetable ~~world~~ [kingdom] require certain conditions of heat, moisture, soil for their germination, so perhaps do the seeds of contagious diseases require certain conditions and laws yet unexplored by us. This

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seems to me to be sustained by some very rational considerations if we may not call them arguments. First the very fact that diseases of essentially the same pathological features exist at one time malignant epidemic, contagious and at others [mild sporadic, & apparently noncontagious.] ~~comparatively the opposite~~. ~~Examples of this are given above.~~ Secondly, ~~we see a similar instance of this same principle though in a more limited extent, in~~ The conditions of constitution induced by some of the exanthemata [pertussis &] ~~(e.g. small pox, measles), these diseases being self protective.~~ [Once attacked by these diseases the individual has set up in his system a "condition of constitution" forever after unfavorable [to the pre]valence of these diseases, they being self protective.] ~~The foregoing indicates the almost~~ [principles have been digressed to explain the phenomena of p.f., viz why it should, if it really does, affect one class of persons more readily than another and why it should prevail at one time epidemic at another sporadic, at one time] ~~certainty of the existence of the contagious element~~ ~~a~~ diseases, & the probability that the mere fact of a

practice but the first patient he attended was attacked and died." Of the disease following the track of one physician or midwife we have many instances. ~~And there let me remark what~~ seems ~~xx~~ so remarkable to me, our opponents do not deny this fact nor the cases attesting it, but deny the correctness of our reasoning in deducing the doctrine of contagion from the fact & cases, while this very fact & the cases attesting it seem to me to be the "crucial test", the absolute and incontestible proof of contagion. The case is cited by Robertson of Manchester of a midwife connected with a charitable institution of that place, losing 6 out of 30 patients within the space of one month, whereas of 380 cases attended by other midwives of the same institution, not one was attacked. Armstrong observed that 40 out of 43 cases occurring in Sunderland was in the practice of one physician and his assistant. A physician writing to Dr Haines gives an account of several cases occurring to him within two months. ~~the~~ two of the patients nearer than half a mile to each other, and not until he had discontinued from his practice & thoroughly cleansed himself did his cases of puerperal fever cease.

Dr West states that ~~xx~~ several females delivered by Dr S. Jackson, in rapid succession, were all attacked with puerperal fever & five of them died (Churchill & Simms

Dr Jackson, while practicing in Northumberland County Pa. had 7 cases of puerperal fever in rapid succession. Women became alarmed and summoned other aid. Those attended by midwives and other physicians did well nor were there but two cases within a radius of 5 miles & these were afterwards accounted

which I shall now adduce hereafter seem sufficient to establish each one of these points. Lastly & finally This view of its pathology best explains its general phenomena. Summing up the whole case, does it ~~strike any one as~~ seem probable that the profound impression of the system which can produce death in from 5 to 20 hours with no symptoms of inflammation of the peritoneum (Prof. Murphy in the London Lancet March 28. 1857 and Blundells Obstetric Medicine page 508) can be due to anything else than a blood poison?

7. That this is not a mere theory unsupported by actual cases, a tedious array of well authenticated instances might be cited. And shall I place at the head of my list the celebrated case of Dr. Rutter recounted by himself before the Coll. Phys. Phila & quoted by Prof. Meigs to prove the contrary doctrine? I feel constrained to do so partly because that case first led me to doubt and partly because it has been cited as above stated.

To be sure there are circumstances connected with that remarkable case difficult to be accounted for under any known theory. But if the case proves anything it rather proves the remarkably contagious character of the disease than no contagion at all. And the same may be said of Dr. Brooks case quoted by Churchill (Dis. of women p. 616) of "a general practitioner who lost so many cases of puerperal fever that he determined to attend no more but that his partner should take his place. For one month no cases appeared, at the end of which time the elder practitioner resumed his

physiological condition, yet it cannot be denied that the peculiar state of the pregnant uterus rendering a disposition of the system bordering upon disease, the abraded surface of the interior of the womb with its lacerated vessels after parturition, & the sudden removal of the tension caused by the presence of the foetus with its appendages, leave the patient in a condition to say the least with peculiar susceptibilities, 2dly The very fact that it becomes Epidemic conclusively indicates that some other element than the simple phlegmasia is present. Cases of Epidemic pneumonia or hepatitis are unknown, (The epidemic prevalence of influenza is only an apparent exception its being undoubtedly due to an aërial poison.) I think I may say that there is no inflammation simple & uncomplicated that ever becomes Epidemic. See note. Hence if this disease is a simple peritonitis, it is contrary to the analogy of all the diseases of the same class. 3dly On the Contrary puerperal fever presents close analogy to that class of diseases which owe their existence undeniably to a blood poison and hence it is regarded by many eminent writers as identical with some forms of them. I select from Profr Dickson these tests for contagious maladies a occurrence of repeated cases upon exposure to fomites; these are circumstances which give obvious [...] for the belief of the contagiousness of any maladies of which they are predicable. b Progressive extension from a first observed locality and c a decided preference for dense populations." The examples

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intensely contagious; at another so mild as that its contagious element has been wholly lost sight of. ~~Nor indicate the probability of the fact~~ ~~Might the more fact of a~~ If the hypothesis be true that the ~~non~~ fact of a disease being contagious or not contagious depends sometimes (in the case of pertussis + ~~the erysipelas~~ small pox & always) ~~depends~~ upon causes extraneous to the disease itself ~~due to causes outside of~~ the disease itself. Upon this hypothesis Prof Meigs question — why, of two ladies confined at the same time, living on opposite sides of the street & attended by the same practitioner, one should have childbed fever and the other escape — is of easy solution. Hence no specific laws, none beyond those of the most general character, can be allowed as obtaining in this or any other contagious disease. For no one can foretell the type of the disease with wh. his patient is to be attacked; or can tell the "Epidemic State" of that patient's constitution which renders her to a particular disease.

My next point will be that the most rational view of the pathology of puerperal fever leads us to the opinion of its contagiousness.

The disease as I conceive it consists primarily and essentially in a blood poison. Peritonitis may occur, in point of fact does most always accompany as result just as diarrhoea may result from intestinal irritation. The peritonitis, however, to a certain extent varies inversely as the exciting cause. The poison if not excessive in amount awakens a peritonitis of cohesive stamp & its character upon the ~~disease~~ case and the disease is sthenic or of inflammatory type. Let the poison be overwhelming and the peritonitic element may be wholly wanting or present only in a slight degree and the patient ~~be~~ comatose in 3, 5 or 8 hours, or linger for a longer or shorter period and the case is asthenic or typhoid. The following considerations lead to the adoption of this view. 1st The conditions of the uterus and its appendages offer special facilities for the ~~adoption~~ appropriation of the poison by its system. Under the supposition ~~it might be~~ that there is a poison. Though pregnancy & parturition as Prof. Meigs asserts, is not a pathological but a

Too much repetition of fs

for. In the next case of parturition he came after a thorough purification But unwittingly used the same flannel-lined gloves which he had used in one of his previous puerperal fever cases. The patient was attacked with puerperal fever. the disease During the next month he had several cases of labor all eventuating attended by laboring puerperal fever. But on the occurrence of two very severe cases. he ascertained that they were using an injection pipe that had been used by one of his puerperal fever patients (Transactions of Coll. Phys Philada May 3d 1842). I think it useless to multiply instances. The books are full of them and one single accurately observed, well-recorded case weighs more than volumes of negative cases. A negative case proves nothing. The assertion of Prof Meigs so positively made that he was never the bearer of contagion proves literally itself only.

Most of the objections to the doctrine of contagion of this disease have been noticed directly or incidentally in the foregoing. I only quote one more from Prof Meigs work on Childbed Fever one of the conditions of contagion is that it is no respecter of persons but attacks all individuals alike and that here that condition is wholly wanting, it attacking only puerperal or parturient women"; again "no human being save a pregnant or parturient woman is susceptible to the poison." Concerning the first proposition, as a statement of the "conditions of contagion" I can do no better than quote from Professor Holmes. In a series of propositions, his third declares that to prove the contagion of puerperal fever, it is not necessary to consult any theorist on the subject as

whether or not it is consistent with his preconceived notion that such a transfer should exist; and his fourth declares that if the medical theist insist on being consulted and we are fit to indulge him, he cannot be allowed to assume that the alleged laws of contagion deduced from observation in other diseases shall be cited to displace the alleged laws deduced from observation in this. ~~The claims set forth in~~ these propositions, aside from the strident tone of pique in wh. they are couched, are so eminently reasonable and applicable to the case in hand that I have quoted them at length and will not further enlarge upon them.

Concerning the objection of Prof. Meigs as a matter of fact that ~~second quotation from Prof Meigs that~~ no human being save a pregnant or parturient woman has been affected with puerperal fever I have only to refer to the opinions of many prominent physicians who advocate the identity of puerperal fever with other forms of disease due to a blood poison, and cite cases seeming to establish that position.

Dr Credé in a report on puerperal fever relates that for nearly two years it had ravaged in the Charité Hospital Berlin; he noticed that the contagion of hospital Gangrene and Pyaemia was in close relation with that of puerperal fever, and added that it appeared manifest that where hospitals were connected with lying in wards, puerperal fever assumed a far greater intensity. (London Lancet Mch 28 1857). Dr Lasure of Newcastle Pa. in the American Journal of Medical Sciences for Jany 1856 relates the occurrence of an Epidemic of erysipelas which incontrovertibly was the cause of many cases of childbed fever. Dr Miles Smith in a paper before

the London Obstetrical Society Nov 6 1861 extends his belief to diphtheria, small pox, post mortem ~~Remarks~~ Examinations & other poisons as agents which if brought near the lying-in woman originate puerperal fever. Dr Cadie in a review of O. W. Holmes "Private Pestilence" avows his belief in the identity of puerperal fever with some forms of Erysipelas. These cases & opinions from so high a source seem to show that the difference between puerperal fever & Erysipelas may after all be only in name.

But I have still one more case to adduce which proves that others than pregnant & parturient women are obnoxious to the disease:- "M. Depaul relates: during an Epidemic of puerperal fever at the Maternité Hospital, a midwife was entrusted with the case of a woman recently delivered, affected with a severe metro-peritonitis. One morning the midwife in giving the attention to a patient which her situation required, was powerfully impressed and as if suffocated by the emanations which escaped on raising the bed clothes. The same evening a strong shivering fit accured. her abdomen became very painful, pulse small and frequent, greenish vomiting, diarrhoea; at last all the symptoms of puerperal fever set in. She died in 48 hrs. At the autopsy the changes usually observed in cases of puerperal fever were found. M. Depaul was enabled to establish that this woman was not in any form of the puerperal state and also that she presented all the signs of virginity."
(American Journal from L. Union. Medicale Mch 3. 1855)

2dly The very fact that it becomes Epidemic ~~seems to~~ indicates that some other Element than a simple phlegmasia is present. for the very idea of Inflammation as contrasted with specific is that the former ~~devoid of~~ caused by influences or agents not in themselves injurious is not Contagious. ~~But~~ The moment that an inflammation overleaps this bound it enters a new field: the Element of a blood-poison is added to it & it is now truly specific dependant upon causes in themselves injurious. And so it seems to me that the accounts of the Epidemics of common furuncle which we have recorded are accounts of specific not simple furuncle, and I doubt not that the pus was as distinctly inoculable as that of Chancre or small pox - Another point in reference to these accounts. they are faulty as records if no Experiment by Circulation had been performed and as faulty should be rejected I (might only mention this last point)